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| APPLICATION NO.   | FILING DATE          | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.    |  |
|---|----------------------|----------------------|---------------------|---------------------|--|
| 09/874,055  | 06/06/2001           | Yoko Iwamiya         | 208853US0           | 5631                |  |
| 22850   | 7590 07/26/2006      |                      | EXAM                | EXAMINER            |  |
| C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. |                      |                      | METZMAIER           | METZMAIER, DANIEL S |  |
| •   | 1940 DUKE STREET     |                      | ART UNIT            | PAPER NUMBER        |  |
| ALEXAND   | ALEXANDRIA, VA 22314 |                      |                     | 1712                |  |
|   |                      |                      |                     |                     |  |

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |   | Application No.                                | Applicant(s)                |  |  |  |
|--|---|--|-----------------------------|--|--|--|
| Office Action Summary  |   | 09/874,055                                     | IWAMIYA ET AL.              |  |  |  |
|  |   | Examiner                                       | Art Unit .                  |  |  |  |
|  |   | Daniel S. Metzmaier                            | 1712                        |  |  |  |
| Period fo  | The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply |  |                             |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |  |                             |  |  |  |
| Status   |   |  |                             |  |  |  |
| 1)[X]  | Responsive to communication(s) filed on 14 Ap   | oril & 15 May 2006                             |                             |  |  |  |
| · <u> </u>   |   | action is non-final.                           |                             |  |  |  |
| ,  | nce this application is in condition for allowance except for formal matters, prosecution as to the merits is         |  |                             |  |  |  |
|  | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.                     |  |                             |  |  |  |
|  |   | A parto Quaylo, 1000 O.D. 11, 40               | 0 0.0. 210.                 |  |  |  |
| Dispositi  | on of Claims  |  |                             |  |  |  |
| 4)⊠  | Claim(s) <u>1,2,5,7,8,11 and 13-22</u> is/are pending in the application.   |  |                             |  |  |  |
| 4  | 4a) Of the above claim(s) is/are withdrawn from consideration.  |  |                             |  |  |  |
| 5)   | Claim(s) is/are allowed.  |  |                             |  |  |  |
| 6)⊠  | )⊠ Claim(s) <u>1,2,5,7,8,11 and 13-22</u> is/are rejected.  |  |                             |  |  |  |
|  |   |  |                             |  |  |  |
|  | Claim(s) are subject to restriction and/or election requirement.  |  |                             |  |  |  |
| Application Papers   |   |  |                             |  |  |  |
| 9) ☐ The specification is objected to by the Examiner.   |   |  |                             |  |  |  |
|  |   |  |                             |  |  |  |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.   |   |  |                             |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |  |                             |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |  |                             |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |  |                             |  |  |  |
| Priority u   | nder 35 U.S.C. § 119  |  |                             |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>  |   |  |                             |  |  |  |
| Attachment   | ` ·   |  |                             |  |  |  |
|  | e of References Cited (PTO-892)<br>e of Draftsperson's Patent Drawing Review (PTO-948)                                | 4)  Interview Summary (<br>Paper No(s)/Mail Da |                             |  |  |  |
| 3) 🔲 Inform  | nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) No(s)/Mail Date  |  | stent Application (PTO-152) |  |  |  |

#### **DETAILED ACTION**

Claims 1-2, 5, 7-8, 11, and 13-22 are pending.

#### Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 15, 2006 has been entered.

### Claim Rejections - 35 USC § 112

- The following is a quotation of the second paragraph of 35 U.S.C. 112:
   The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 3. Claims 1-2, 5, 7-8, 11, and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The independent claims employ improper alternative language in defining the R groups of the formulae. More specifically, the claims employ open language "which may contain". It is unclear what are the metes and bounds of the claimed groups and the unspecified species. See as an example, the claim 1 definition of R<sub>9</sub> and R<sub>11</sub>.

The dependent claims are included since they do not correct the issue with these limitations and thus incorporate them.

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## Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 6. Claims 1-2, 5, 7-8, 11, and 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naito et al, US 5,292,799. Naito et al (abstract, column 8, lines 16 et seq; column 12, lines 66 et seq; examples, and claims) discloses compositions employing a liquid siloxane and a cross-linking agent with a curing catalyst. Naito et al (column 24, lines 55 and 57) disclose the use of the compositions in the treatment of fibers and textiles. Said utility as a coating agents is clearly contemplated in the Naito et al reference.

Naito et al <u>differs</u> from the claims in the exemplified composition and/or disclosure of sufficient specificity to anticipate the claims.

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Naito et al (column 12, lines 66 et seq) disclose liquid siloxanes reading on applicants' component (a) oligomers. Naito et al further discloses trimethoxysilanes cross-linking agent therewith. Naito et al (column 26, lines 33 et seq) disclose the use of dimethyl dimethoxysilane cross-linking agents. Naito et al (column 8, lines 31-37) disclose the cross-linker is employed at less than 50 % of the liquid siloxane.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the dimethyldimethoxysilnae cross-linkers as an obvious functional equivalent to the cross-linker set forth in column 13, lines 1-3, as clearly contemplated by the Naito et al reference.

Furthermore, since Naito et al clearly contemplates both the trialkoxysilanes and the dialkoxysilanes as cross-linkers in less than 50% of the liquid siloxane, the combination of the two cross-linkers would have been obvious to one of ordinary skilled in the art at the time of applicants' invention as a point of law. It is generally prima facie obvious to use in combination two or more ingredients that have previously been used separately for the same purpose in order to form a third composition useful for that same purpose. In re Kerkhoven, 626 F.2d 846, 205 USPQ 1069 (CCPA 1980); In re Pinten, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971); In re Crockett, 279 F.2d 274, 126 USPQ 186 (CCPA 1960). As stated in Kerkhoven and Crockett, the idea of combining them flows logically from their having been individually taught in the prior art.

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### Response to Arguments

7. Applicant's arguments filed May 15, 2006 have been fully considered but they are not persuasive.

- 8. Regarding the rejections under 35 USC 112, the remaining issues are set forth above.
- 9. Applicants (pages 13-16) assert the Naito et al reference requires a cross-linking agent while applicants invention doesn't necessarily consist of a cross-linker (page 15). This has not been deemed persuasive since the independent claims employ open transitional language, i.e., "comprising", which would not exclude the further ingredients.

Furthermore, the higher, e.g., greater than 2 alkoxy silanes, would function as cross-linking sites.

10. Applicants (page 16) assert the catalyst mechanism imparts patentable distinction to the claims over the Naito et al reference. This has not been deemed persuasive since applicants claims are not commensurate in scope with their arguments.

Furthermore, product and product-by-process claims are examined based on the product rather than the method said product is made.

- 11. Applicants comments (pages 16 and 17 denoted (1)) regarding the cross-linking agent (B) has been addressed above.
- 12. Applicants comments (page 17 denoted (2)) regarding the formation of reaction mechanism directed to fibers has not been deemed persuasive since the claims are directed to products that would have been obvious in view of the products of the Naito

et al reference. Applicants have proffered no evidence that the products are unobvious and/or unobvious in view of the prior art.

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- 13. Applicants comments (pages 17 and 18 denoted (3)) regarding the reason applicants use of dimethyldimethoxysilane is different from the reason the Naito et al reference employs the same compound have not been deemed persuasive. Intended use of a compound or compositions does not impart patentability thereto.
- 14. Applicants comments (page 18 denoted (4)) regarding the Naito et al reference use of cross-linking material (B) is less than 50% do not clearly distinguish the claims since said cross-linker corresponds to the materials used in less than 50% of the claims.
- 15. Applicants comments (page 18 denoted (5)) regarding the R/Si ratio is unclear since said ratio is not in the claims nor is it clear where applicants derived said ratio regarding the instant invention.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel S. Metzmaier Primary Examiner Art Unit 1712

**DSM**